IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A liquid processing apparatus for forming a coating film on a polygonal substrate by spin coating in an ambient with a descending clean air flow, comprising:

a spin chuck including a support plate for substantially horizontally supporting the substrate thereon, the ~~spin chuck~~ support plate rotating the substrate in a substantially horizontal plane;

a cup disposed around the substrate supported on the ~~spin chuck~~ support plate;

an exhaust unit for evacuating an inside of the cup;

a supply nozzle for supplying a coating solution to a top surface of the substrate supported on the ~~spin chuck~~ support plate; and

at least one air flow control member provided on the ~~spin chuck~~ support plate, the air flow control member being disposed adjacent to a periphery of the polygonal substrate supported on the ~~spin chuck~~ support plate, wherein the air flow control member is not provided near corner portions of the substrate supported on the ~~spin chuck~~ support plate.

Claim 2 (Currently Amended): The liquid processing apparatus of claim 1, wherein a top surface of the air flow control member is substantially at the same level as that of the substrate supported on the ~~spin chuck~~ support plate.

Claim 3 (Original): The liquid processing apparatus of claim 1, wherein the air flow control member includes a portion facing the periphery of the substrate and a flat portion outwardly extending from the portion facing the periphery of the substrate.

Claim 4 (Original): The liquid processing apparatus of claim 1, wherein the air flow control member includes an arc shaped outer rim.

Claim 5 (Currently Amended): The liquid processing apparatus of claim 1, further comprising a plurality of upright walls facing sides of the polygonal substrate, respectively, wherein the upright walls are disposed between the air flow control member and the support plate along the sides of the polygonal substrate supported on the ~~spin chuck~~ support plate.

Claim 6 (Currently Amended): The liquid processing apparatus of claim 1, wherein the support plate has a generally polygonal shape corresponding to the substrate, and is provided with cutout at corners thereof, the corner portions of the substrate outwardly protruding from the support plate through the cutout portions thereof when the substrate is supported on the ~~spin chuck~~ support plate.

Claim 7 (Currently Amended): The liquid processing apparatus of claim 6, further comprising a single body transfer arm having a number of support extrusions for supporting the corner portions of the substrates corresponding to the cutout portions of the support plate, respectively, wherein the transfer arm unloads the substrate from the ~~spin chuck~~ support plate by supporting the protruded corner portions of the substrate by the support extrusions.

Claim 8 (Original): The liquid processing apparatus of claim 6, wherein a size of each of the cutout portions ranges from about 4 mm to 10 mm.

Claim 9 (Original): The liquid processing apparatus of claim 1, wherein the support plate includes at least one ventilation hole formed therethrough, the ventilation hole communicating with the exhaust unit.

Claim 10 (Currently Amended): The liquid processing apparatus of claim 9, wherein ~~the~~ each ventilation hole is provided at a location ~~locations~~ corresponding to a corner ~~portions~~ portion of the substrate supported on the ~~spin chuck~~ support plate, as viewed from above.

Claim 11 (Currently Amended): The liquid processing apparatus of claim 1, further comprising:

a ring plate for controlling the descending clean air flow towards the substrate supported on the ~~spin chuck~~ support plate, the ring plate being disposed above the air flow control member; and

a Z-drive mechanism for adjusting a distance H1 between the ring plate and the air flow control member, the ring plate being vertically movably supported by the Z-drive mechanism.

Claim 12 (Original): The liquid processing apparatus of claim 1, further comprising:

an air flow regulation ring including an air inlet having an opening surrounding an outer periphery of the air flow control member, wherein the air inlet communicates with the exhaust unit.

Claim 13 (Original): The liquid processing apparatus of claim 12, wherein a top surface of the air flow regulation ring is disposed at a higher position than that of the air flow control member.

Claim 14 (Currently Amended): The liquid processing apparatus of claim 12, further comprising a plurality of spacers for providing a gap between the ~~spin chuck~~ support plate and the air flow control member.

Claim 15 (Currently Amended): The liquid processing apparatus of claim 12, wherein a top surface of the air flow control member is substantially at the same level as that of the substrate supported on the ~~spin chuck~~ support plate.

Claim 16 (Currently Amended): The liquid processing apparatus of claim 12, further comprising:

a ring plate for controlling the descending clean air flow towards the substrate supported on the ~~spin chuck~~ support plate, the ring plate being disposed above the air flow control member; and

a Z-drive mechanism for adjusting a distance H2 between the ring plate and the air flow regulation ~~member~~ ring, the ring plate vertically moving supported by the Z-drive mechanism.

Claim 17 (Withdrawn): A liquid processing method for forming a coating film on a polygonal substrate by spin coating in an ambient with a descending clean air flow, comprising the steps of:

(a) supporting the polygonal substrate by a spin chuck and placing at least one air flow control member, which rotates with the spin chuck, along a periphery portion of the substrate except at corner portions thereof;

(b) supplying a top surface of the substrate supported on the spin chuck with coating solution and centrifugally spreading the coating solution by rotating the spin chuck about a normal axle;

(c) removing a part of the coating solution on the top surface of the substrate by rotating the substrate at a first rotating speed; and

(d) evaporating solvent included in the remaining coating solution on the top surface of the substrate by rotating the substrate at a second rotating speed slower than the first rotating speed.

Claim 18 (Withdrawn): The liquid processing method of claim 17, wherein in the step (a), a transfer arm is lowered relative to the spin chuck, and support extrusions which support corner portions of the substrate are passed through cutout portions of the spin chuck when an area surrounded by the transfer arm is passed through the spin chuck, whereby the substrate is transferred from the transfer arm to the spin chuck.

Claim 19 (Withdrawn): A liquid processing method for forming a coating film on a polygonal substrate by spin coating in an ambient with a descending clean air flow, comprising the steps of:

(a) supporting the polygonal substrate by a spin chuck and placing at least one air flow control member, which rotates with the spin chuck, along a peripheral portion of the substrate except at corner portions thereof;

(b) supplying a top surface of the substrate supported on the spin chuck with coating solution and centrifugally spreading the coating solution by rotating the spin chuck about a normal axle;

(c) removing a part of the coating solution on the top surface of the substrate by rotating the substrate at a first rotating speed, after stopping the supplying of the coating solution is stopped; and

(d) evaporating solvent included in the remaining coating solution on the top surface of the substrate, by rotating the substrate at a second rotating speed slower than the first rotating speed,

wherein, at least in the step (d), in addition to an air flow produced by the rotation of the spin chuck, a horizontally outward air flow is produced from a periphery of the air flow control member.

Claim 20 (Withdrawn): The liquid processing method of claim 19, wherein at the step (c), a coating solution removed from the substrate during a rotation thereof is drained through a portion below the air flow control member.